

ZADRAZIL, Antonin

The new semiautomatic copying lathe SP 12 with programme control.
Stroj vyr 10 no.7:336-339 '62.

1. Kovosvit, n.p., Sezimovo Usti.

ZADRAZIL, J.

"Vertical Malleability of Glass Pipes", P. 9, (TECHNICKÉ NOVINY, Vol. 2,
No. 9, May 1954, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12,
Dec. 1954, Uncl.

ZADRAZIL, J.

Reducing the time of heating glass tank furnaces. p. 122.
SKLÁR A KERAMIK, Praha, Vol. 5, no. 6, June 1955.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, no. 10, Oct. 1955,
Uncl.

ZADRAZIL, J.

ZADRAZIL, J.: Experience from the Fourth International Glass Congress in Paris. p. 299.

Vol. 6, No. 12, Dec. 1956.

SKLAR A VENAFIK,
TECHNOLOGY
Praha, Czechoslovakia

To: East European Accession, Vol. 6, No. 3, March 1957

ZADRAZIL, Karel, inz.; BARTOS, Pavel, inz. CSc.

Contribution to wheat breeding for rust resistance by cross-
ing with *Triticum timopheevi* Zhuk. Rost výroba 10 no. 4:353-
370 Ap '64.

1. Uhřetice Plant Breeding Station (for Zadrazil). 2. Central
Research Institute of Plant Production, Ruzyně (for Bartos).

42966
8/058/62/000/011/032/051
A160/A101

AUTHORS: Zadražil, Milan, Jirků, Jan

TITLE: A device for the tuning of a klystron

PERIODICAL: Referativnyy zhurnal, Fizika, no. 11, 1962, 20,
abstract 11-3-40m P (Czechoslovakian pat., cl. 21g, 13/17,
no. 100687, Aug. 15, 1961)

TEXT: A description is given of a device for the smooth mechanical tuning
of reflex klystrons by changing the distance between the grids, whereby the
parallelism between these grids is maintained. The tuning gear consists of a
pair of small levers, the position of which is regulated with the help of a
differential screw.

N. S.

[Abstracter's note: Complete translation]

Card 1/1

42965
S/058/62/000/011/031/061
A160/A101

AUTHORS: Zadražil, Milan, Kára, Zdeněk

TITLE: A device for the step-by-step retuning of a klystron

PERIODICAL: Referativnyy zhurnal, Fizika, no. 11, 1962, 20,
abstract 11-3-40ye P (Czechoslovakian pat., cl. 21g, 13/17,
no. 100688, Aug. 15, 1961)

TEXT: A description is given of a lever-type retuning mechanism consisting of two control levers and of one transmission lever. The exterior end of the latter is in contact with the tuning screw which is located inside the klystron. A screw pressing one of the control levers is located at the interior end of the transmission lever. The whole mechanism is set up inside the box - on the side of the klystron. The device may be used for instantaneous switching over to another generation frequency.

N. S.

[Abstracter's note: Complete translation]

Card 1/1

42788

9.4220

S/194/62/000/011/025/062
D413/D308

AUTHORS: Zadražil, Milan and Jirků, Jan

TITLE: A klystron tuning mechanism

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika,
no. 11, 1962, 20, abstract 11-3-40m (Czech. pat.,
cl. 21g, 13/17, no. 100687, Aug. 15, 1961)

TEXT: The authors describe a mechanism for the continuous mechanical tuning of reflex klystrons by varying the distance between the grids while keeping them parallel to one another. The tuning mechanism consists of a pair of levers whose position is controlled by means of a differential screw. [Abstracter's note: Complete translation.] X

Card 1/1

42787

S/194/62/000/011/024/062
D413/D308

9.4.220

AUTHORS: Zadražil, Milan and Kára, Zdeněk

TITLE: A stepwise tuning mechanism for a klystron

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika,
no. 11, 1962, 20, abstract 11-3-40ye (Czech. pat.,
cl. 21g, 13/17, no. 100688, Aug. 15, 1961)

TEXT: A description is given of a tuning lever movement consisting
of two control levers and a transmission lever; the internal end
of the latter is in contact with the tuning screw inside the kly-
stron; the external end of the transmission lever carries a screw
that bears against one of the control levers. The whole mechanism
is fitted in a box at one side of the klystron. It can be used for
instantaneously changing to a different oscillation frequency. *[At-*
stracter's note: Complete translation.] *X*

Card 1/1

ZADRAZIL, S.

SURNAME, Given Names

Country: Czechoslovakia

Academic Degrees: [not given]

Affiliation: Institute of Organic Chemistry and Biochemistry, Czechoslovak Academy of Sciences, Prague

Source: Prague, Collection of Czechoslovak Chemical Communications, Vol 26, No 10, October 1961, pp 2643-2650

Data: "Separation of Nucleic Acid Components on Sephadex."

Authors:

/ ZADRAZIL, S
✓ SORMOVA, Z
✓ SORM, F

ZABRAZIL, S.; SORMOVA, Z.; SORM, F.

Separation of nucleic acid components on Sephadex. Coll Cz Chem 26
no.10:2643-2650 O '61.

1. Institute of Organic Chemistry and Biochemistry, Czechoslovak
Academy of Science, Prague.

ZADRAZIL, S.

SURNAME, Given Names

Country: Czechoslovakia

Academic Degrees: [not given]
Affiliation: Institute of Organic Chemistry and Biochemistry, Czechoslovak Academy of Sciences, Prague

Source: Prague, Collection of Czechoslovak Chemical Communications,
Vol 26, No 10, October 1961, pp 2651-2659

Data: "A Comparison of Enzymic Fragments of Ribonucleic Acids
From Tissues of Normal and Irradiated Animals."

Authors:

ZADRAZIL, S.
 SORMOVA, Z.

ZADRAZIL, S.; SOMMOVA, Z.

A comparison of enzymic fragments of ribonucleic acids from tissues
of normal and irradiated animals. Coll Cz Chem 26 no.10:2651-2659
0 '61.

1. Institute of Organic Chemistry and Biochemistry, Czechoslovak
Academy of Science, Prague.

ZADRAZIL, S.; SORMOVA, Z.

The effect of ionizing radiation on total, microsomal and soluble
ribonucleic acid of rat liver. Coll Cz Chem 27 no.5:1249-1309
Mz '62.

1. Institute of Organic Chemistry and Biochemistry, Czechoslovak
Academy of Sciences, Prague.

ZADRAZIL, S.; SORMOVA, Z.

Reaction of liver ribonucleic acid with formaldehyde before and
after X-irradiation in vivo. Coll Cs Chem 27 no.5:1292-1293
My '62.

1. Institute of Organic Chemistry and Biochemistry, Czechoslovak
Academy of Sciences, Prague.

ZADRAZIL, S.

The effect of ionizing radiation on nucleic acids. (A comparative study). Neoplasma 9 no.4:395-400 '62.

1. Institute of Organic Chemistry and Biochemistry, Czechoslovak Academy of Sciences, Prague, CSSR.
(RNA) (RADIATION EFFECTS)

ZADRAZIL,S.; KROUPA,Z.; SORMOVA,Z.; SORM,F.

Influence of 8-azaguanine on the content of nucleic acids and
polymyxin production with *Bacillus polymyxa*. Coll Cs Chem
28 no.11:3131-3139 1963.

Growth inhibition of *Bacillus polymyxa* by some antimetabolites of nucleic acid bases. 3163-3165

1. Institute of Organic Chemistry and Biochemistry, Czechoslovak Academy of Sciences, Prague (for all except Kroupa).
2. Institute of Epidemiology and Microbiology, Prague (for Kroupa).

ZADRAZIL, Stanislav.

Ribonucleic acids, their chemical composition and structure. Chem
listy 57 no.9:897-954 S '63.

1. Ustav organické chemie a biochemie, Československá akademie věd,
Praha.

ZADRAZIL, S.

CZECHOSLOVAKIA

KROUPA, Z; ZADRAZIL, S; SOKOLOVA, Z; SOKOLOV, F.

Institute of Organic Chemistry and Biochemistry of the
Czechoslovak Academy of Sciences, Prague (for all)

Prague, Collection of Czechoslovak Chemical Communications,
No 11, 1963, pp 3163-3164

"Growth Inhibition of *Bacillus polymyxa* by Some Antimetabolites
of Nucleic Acid Bases."

(4)

ZADRAZIL, S.

CZECHOSLOVAKIA

ZADRAZIL, S; KROUFA, Z; SOLODOVA, Z; SOKAL, F.

Institute of Organic Chemistry and Biochemistry of the
Czechoslovak Academy of Sciences, Prague (for all)

Prague, Collection of Czechoslovak Chemical Communications,
No 11, 1963, pp 3131-3138

"Influence of 8-Azaguanine on the Content of Nucleic Acids
and Polymyxin Production with *Bacillus polymyxa*."

(4)

ZADRAZIL, Stanislav

Railroads and a timely supply of coal and building materials.
Zel dop tech 11 no.8:239-240 '63.

CZECHOSLOVAKIA

PIVEC, L.; ZADRAZIL, S.; SPONAR, J.; SORMOVA, Z.

Institute of Organic Chemistry and Biochemistry,
Czechoslovak Academy of Sciences, Prague - (for all).

Prague, Collection of Czechoslovak Chemical Communications,
No 11, November 1965, pp 3929-3935.

"Physico-chemical characteristics of low-molecular dna
from calf thymus."

108-17
CZECHOSLOVAKIA

ZADRAZIL, S.; PIVEC, L.; SPONAR, J.; SORMOVA, Z.

Institute of Organic Chemistry and Biochemistry,
Czechoslovak Academy of Sciences, - Prague - (for all).

Prague, Collection of Czechoslovak Chemical Communica-
tions, No 11, November 1965, pp 3920-3928.

"Isolation of low-molecular dna from various animal
tissues."

CZECHOSLOVAKIA

ZADRAZIL, S; SORMOVA, Z

Institute of Organic Chemistry and Biochemistry,
Czechoslovak Academy of Sciences, Prague - (for both)

Prague. Collection of Czechoslovak Chemical Communications, No 3, March 1966, pp 1131-1142

"Characterization of ribonucleic acid preparations
from various sources with respect to their content
of residual protein."

L 42251-66 RM
ACC NR AP6031193

SOURCE CODE: CZ/0008/66/000/004/0571/0572

37
B

AUTHOR: Zadrazil, S.

ORG: none

TITLE: Symposium covering methods of determination, isolation, and fractionation of nucleic acids

SOURCE: Chemicke listy, no. 4, 1966, 571-572

TOPIC TAGS: chemical conference, nucleic acid, ribonucleic acid, fractional distillation, DNA, chemical separation

ABSTRACT: The Symposium was held at Varna, Bulgaria, on the 10th to 15th Oct 65. 100 participants from Bulgaria, Czechoslovakia, Yugoslavia, Hungary, East Germany, Poland, Rumania, and Russia took part. Main emphasis was given to determination of nucleic acids, isolation and fractionation of ribonucleic acids, and isolation and fractionation of deoxyribonucleic acids. Lectures were offered by Kulagov of Russia, Munsch and Wollghehn of East Germany, and Palecek of Czechoslovakia. Ribonucleic acid were discussed in 26 lectures. Deoxyribonucleic acids were discussed in 8 lectures. [JPRS: 36,464]

SUB CODE: 06, 07, 05 / SUBM DATE: none

Card 1/1 bbb

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001963410009-8

ZALRODSKIY, A.G. and MOVCHAN, A.A.

On the effect of adsorbents on alcoholic fermentation.

Biokhimiya, Vol. 17, pp 521, 1952.

MR. J. STONE

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001963410009-8"

ZABRODSEV, L. A.

ZABRODSEV, L. A.- "Experimental and Clinical Observations in the Treatment of Pyoderma with 'Sovizin'." Khar'kov Univ. Med. Inst., Khar'kov, 1955. (Dissertation for Degree of Candidate of Medical Sciences)

See: Knizhnaya Letopis' No. 26, June 1955, Moscow

ZADROZINSKA, Jadwiga

Determination by thin layer chromatography of some phospho-organic
insecticides: parathion, methylparathion, diazinon, malation,
gusation, metasystoks and dipterex. Roczn. panstw. zakl. hig. 14
nc. 4:397-405 '65.

1. Z Zakladu Badania Zywosci i Przedmiotow Uzytku Panstwowego
Zakladu Higieny w Warszawie (Kierownik: prof. dr. M. Nikonorow).

ZADROZNSKA, Jadwiga

Determination of trace amounts of certain organic phosphorus
compounds in plant material by applying paper chromatography.
Roczn panstw zakl hig 15 no.1:5-12 '64.

1. Laboratory for Testing Foods and Articles of Common
Consumption, State Institute of Hygiene, Warsaw. Head:
prof. dr M. Nikonorow.

ZADROZNY, Jerzy, mgr inż.

Induction motors with brushless rotation speed regulation. Wiad
elektrotechn 28 no.7:201-203 Jl '61.

1. Zakład Elektrotechniki Bytowej, Instytut Elektrotechniki,
Warszawa.

ZADROZNY, Jerzy, mgr inż.

Detection of defects of small squirrel-cage rotors. *Wiad*
elektrotechn 28 no.9:265-268 S '61.

1. Zaklad Wyposazen Elektrycznych, Instytut Elektrotechniki,
Warszawa.

ZADROZNY, Jerzy, mgr.inz.

Detection of defects in small squirrel type rotors. Wiad
elektrotechn 28 no.9:265-268 S '61.

1. Zaklad Wyposazen Elektrycznych, Instytut Elektrotechniki,
Warszawa.

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001963410009-8

ZADROZNY, Marian, mgr inz.; BARTECKI, Piotr, mgr inz.

221.5 m of cross heading during 1 month in the 1 Maja mine. Wiadom
gorn 14 no.2/3:49-53 F-Mr '63.

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001963410009-8"

CHMIELEWSKA, Irena; JACHYMCZYK, Witold; KANIUGA, Zbigniew; LEWAK, Stanislaw;
PAŚZEWSKI, Andrzej; ZADROŻNICKA, Ewa

Components of Peonia flowers (Peonia lactiflora Pa. ll). Pt.1.
Rocznik chemii 36 no.11:1599-1605 '62.

1. Department of Biochemistry, University, Warsaw.

OZERYANSKAYA , N.M.; ZADOROZHNAIA, N.A.

Antiviral properties of actinomycetes isolated from Ukrainian soil and studied in tissue culture. Antibiotiki 8 no.7:611-614
Jl'63 (MIRA 17:3)

1. Otdel antibiotikov (zav. A.B. Chernomordik) Kiyevskogo instituta epidemiologii i mikrobiologii.

DRYZEK, T., mgr., inz.; ZADRZYNISKI, E., mgr., inz.

I National Competition of Rationalizers in the field of thermal energy and fuel economy. Przegl elektrotechn 37 no.9:3 of cover '61.

1. Prezes Stowarzyszenia Elektryków Polskich (for Dryzek) 2. Zastępca Ministra Górnictwa i Energetyki (for Zadrzynski)

(Poland—Electric power) (Poland—Fuel)

ZADRZYNISKI, E., mgr inz.

Activities of the Commission for the determination of undertakings
necessary to meet and control the electric power shortage, 1960-1962.
Energetyka prawa 10 no. 10:362 0 '62.

1. Podsekretarz Stanu, Ministerstwo Gornictwa i Energetyki, Warszawa.

ZADRZYNSKI, Eugeniusz, mgr., inż.

Yesterday - Jaworzno MW, today - Skawina 500 MW, tomorrow
- Turow 1,400 MW. Przegl techn 81 no.19:15-16 '60.

1. Wiceminister Gornictwa i Energetyki,

ZADRZYSKI, E.

May D_gy obligations in electric-power plants.

p. 114
Vol. 9, no. 3, May/June 1955
ENERGETYKA
Stalinogrod

SO: Monthly List of East European Assessments (EEAL), LC, Vol. 5, no. 2
Feb. 1956

KAHL, T., prof.; ZADRZYNISKI, E., mgr., inz.

VIth National Contest of Rationalizers in the field of electric power economy. Przegl elektrotechn 37 no.10:3 '61.

1. Prezes Stowarzyszenia Elektryków Polskich (for Kahl) 2. Podsekretarz Stanu Ministerstwa Górnictwa i Energetyki (for Zadrzynski)

(Poland—Electric power)

Zhdanov, N. A.

"Principles of Experimental Aerodynamics" published in Moscow in 1953 as a textbook to be used in aviation institutes. Following is a translation of the Table of Contents and a brief summary of the context.

TABLE OF CONTENTS

Foreword	3
Introduction	5
Chapter I - Aerodynamic coefficients of experimental aerodynamics	13
Chapter II - Methods of aerodynamic testing	42
Chapter III - Speed and pressure measuring	100
Chapter IV - Boundary layer and turbulence	150
Chapter V - Effect of geometrical parameters and the number "R" on the aerodynamic characteristics of the profile and of the wing. Maximum lift of the wing	197
Chapter VI - Effect of air compressibility on the aerodynamic characteristics of the profile and the wing	260
Chapter VII - Drag of the rotating parts, fuselages and other parts of a plane	305
Chapter VIII - Aerodynamic characteristics of a plane's stability and control	342

This book gives a complete elementary course on experimental aerodynamics. The question of aerodynamic similarity is analysed and a brief description of methods used for aerodynamic experimenting given. The results of experiments on the wing and the whole of the plane are explained as well as methods of calculating aerodynamic characteristics. Special attention is given to aerodynamics of high speeds.

D-39926

ZADUBAN, M.

Low energy Beta-ray applicator. Neoplasma 11 no.1:103-109 '64.

1. Isotope Laboratory, Radiological Clinic, P.J.Safarik University, Kosice, Czechoslovakia.

ZADUBAN, M.

Beta ray production on acetylcellulose basis. Coll Cz
Chem 29 no.4:1065-1068 Ap '64.

1, Radiobiological Laboratory, Slovak Academy of Sciences,
Kosice.

ZADUBAN, M.; PIVONKA, M.; KLVANA, M.

Preparation of contrast suspension with Y90 for therapeutic application. Neoplasma 8 no.4:439-446 '61.

1. Istopisches Laboratorium, Radiologische Klinik, P.J. Safarik-Universitat, Kosice, Tschechoslowakei.
(YTTRIUM radioactive)

ZADUBAN, M.; POKORNÁ, I.

Separation of iodide from protein-bound iodine on Anex S 8
TM. Bratisl. lek. listy 44 no. 5:299-302 15 S^o64

L. Izotopove pracovisko Radiologickej kliniky Univerzity
P J. Safarika v Kosiciach; veduci doc. MUDr. E. Kunstadt,
C. Sc.

PUZOVA, Hana; SZABOVA, Katarina; CERMAN, J.; PUZA, A.; KUNSTADT, E.;
ZADUBAN, M.

The problem of autoinfection after total body lethal irradiation
of dogs with ^{60}Co . Folia biol. 8 no.5:298-308 '62.

1. Department of Medical Microbiology, Research Laboratory of the
Clinic of Surgery and Radiology Clinic of the Medical Faculty,
Safarik University, Kosice.

(COBALT ISOTOPES) (RADIATION INJURY, EXPERIMENTAL)
(INFECTION)

ZADUBAN, M.; KUNSTADT, E.

A plastic applicator with active ^{32}P layer between two catgutous foils. Neoplasma 9 no.5;501-506 '62.

1. Isotope Laboratory, Radiological Clinic, P.J. Safarik University,
Kosice, CSSR.

(RADIOTHERAPY) (PHOSPHORUS ISOTOPES)

PUZA, A.; SIMKO, J.; KUNSTADT, E.; ZADUBAN, M.

Changes in leukocyte phagocytosis in rabbits after total body
irradiation with Co60. Acta biol. acad. sci. Hung. 13 no.1:
59-66 '62.

1. Wissenschaftliches Laboratorium der Chirurgischen Universitätsklinik
(Vorstand: J. Knazovicky), Wissenschaftliches Laboratorium der
Gynakologischen Universitätsklinik (Vorstand: Th. Schwarz) und
Radiologische Universitätsklinik (Vorstand: E. Kunstadt), Kosice,
CSSR.

(COBALT ISOTOPES) (RADIATION INJURY EXPERIMENTAL)
(PHAGOCYTOSIS)

CZECHOSLOVAKIA

BRUTOVSKY, M; ZADUBAN, M

Institute of Experimental Biology, Slovak Academy
of Sciences, Kosice - (for both)

Prague, Collection of Czechoslovak Chemical Communica-
tions, No 2, February 1967, pp 505-516

"Use of anionite Hofatit SB on a concentration of I⁻ 31."

L 38932-66

ACC NR: AP6029723

SOURCE CODE: CZ/0043/65/000/012/0925/0930

AUTHOR: Zaduban, Milan (Engineer; Kosice); Brutovsky, Milan--Brutovski, M. 3
(Engineer; Kosice); Banas, Julius--Banyas, Yu. (Engineer; Kosice) 3
3ORG: Radiobiological Department, Institute of Experimental Biology, SAV, Kosice
(Radiobiologicke oddelenie Ustavu experimentalnej biologie SAV)TITLE: Chromatographic separation of $\text{sup}^{131}\text{I sup -}$, $\text{sup}^{131}\text{IO sup - sub 3}$, and $\text{sup}^{131}\text{IO sup - sub 4}$

SOURCE: Chemicke zvesti, no. 12, 1965, 925-930

TOPIC TAGS: paper chromatography, ion exchange, chemical separation

ABSTRACT: The separation was conducted on Whatman Paper #1, both on untreated paper, and on paper which was treated with ferric hydroxide and barium sulfate, and also by a liquid anion exchanger (Anex PC-Amin KM sec.). The best separation was obtained when the paper was treated with ferric hydroxide and the following mobile phases used: ethanol-water-conc. ammonia, 0.01 NaOH, and distilled water.
Orig. art. has: 3 figures and 2 tables. [JPRS: 34,669]

SUB CODE: 07 / SUBM DATE: 26Aug65 / ORIG REF: 002 / OTH REF: 008

Card 1/1

0918 0200

RadiobiologyCZECHOSLOVAKIA

ZADUBAN, Milan; BRUTOVSKY, Milan; LIPTAKOVA, Gizela; VINKLEROVA, Olga; Department of Radiobiology, Institute of Experimental Biology, Slovak Academy of Sciences, and Chair of Biology, Faculty of Natural Sciences, P.J. Safarik University(Oddelenie Radiobiologie Ustavu Experimentalnej Biologie Slovenskej Akademie Vied a Katedra Biologie Prirodovedeckej Fakulty Univerzity Pavla Jozefa Safarika), Kosice.

"Determination of Radioactive Iodine in Plants."

Bratislava, Biologia, Vol 21, No 8, 1966, pp 578 - 588

Abstract: The authors describe a method of measuring the activity of I^{131} in plant materials either directly or after chemical treatment. I^{131} is detected by means of scintillation detectors using beta or gamma radiation. When I^{131} is the only radioactive element present, chemical treatment of the sample is not needed; when other active elements are present, it may be determined spectrometrically or after a chemical treatment. I^{131} is extracted from plant materials by NaOH at 100°C; the extraction can be improved by ultrasonic devices. Separation-concentration methods recommended are: extraction-precipitation; ion exchange by a solid and liquid anion exchanger; chemical sorption. 7 Figures, 3 Tables, 3 1/1 Western, 5 Czech, 2 Russian references. (Ms. rec. 5 Nov 65).

ZADUBAN, Milan, inz. (Kosice, Rastislavova 41)

Preparation of p-iodophenylisothiocyanic acid marked ^{35}S and
 ^{131}I . Chem zvesti 16 no.1/2:60-64 Ja-F '62.

1. Izotopove pracovisko Radiologickej kliniky Lekarskej fakulty
Uiverzity P.J.Safarika, Kosice.

ZADUBAN, M.

Measurement of low gamma activity by means of the NAG 202 3-dimensional
scintillation detector. Cesk. farm. 11 no.6:322-324 Jl '62.

1. Izotopove oddelenie Radiologickej kliniky lekarskej fakulty university
P.J. Safarika UPJS Kosice.
(RADIOMETRY equip & supply)

CZECHOSLOVAKIA

ZADUBAN, M.

Isotope Laboratory of the Radiological Clinic of P. J.
Safarika University (Izotopove pracovisko Radiologickej
kliniky Univ. P. J. Safarika), Kosice

Bratislava, Bratislavské lekarske listy, No 10, 1963, pp
596-601

"The Use of Silver-Activated Silver Iodid and ^{131}I for the
Estimation of Iodid Beside Protein-Bound Iodine."

ZADUBAN, M.

Examination of iodine adsorption on silver-activated silver
iodine by means of ^{131}I . Coll Cz Chem 28 no.4:1065-1069
Ap '63.

1. Isotopenverarbeitung, Radiologische Klinik, Safarik-
Universitat, Kosice.

ZADUBAN, Milan

Absorbed quantity determination by radioisotopes. Jaderna
energie 9 no.4:114-117 Ap '63.

1. Izotopove pracovisko Radiologickej kliniky,
Universita P.J. Safarika, Kosice.

BRUTOVSKY, Milan, inz.; ZADUBAN, Milan, inz.; BANAS, Julius, inz.;
LIPTAKOVA, Gizeia, prum. biol.

Contribution to the determination of ^{131}I by means of the
extraction method. Chem zvesti 19 no 6:470-474 '65.

1. Radiobiological Division of the Institute of Experimental
Biology of the Slovak Academy of Sciences, Bratislava, Kuzmanyho
12 (for Brutovsky, Zaduban and Banas). 2. Chair of Biology
of the Pavol Jozsef Safarik, Kosice, Kuzmanyho 12 (for
Liptakova). Submitted September 28, 1964.

dustry. In 1946, the aid of tracer isotopes was first applied to industrial processes. This method is extremely valuable in solving many problems.

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001963410009-8

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001963410009-8"

PUZA, A.; KLVANA, M.; KUNSTADT, E.; ZADUBAN, M.

Notes on the problem of the transplantation of bone. Folia biol.
7 no.5:343-348 '61.

1. Research Laboratory of the Medical Faculty Surgical Clinic, ~~Safarik~~
University and Radiology Clinic of the Medical Faculty, Safarik
University, Kosice.
(BONE MARROW transpl) (RADIATION INJURY exper)

ZADUBIN, Maksim Nikitich, GONCHAROV, G.D., spets.red.; KUZ'MINA, V.S., red.;
SOKOLOVA, I.A., tekhn.red.

[Preventing the pollution of fishing waters by industrial sewage
and other wastes] Okhrana rybokhozistvennykh vodosrov ot zagryazneniya
promyshlennymi stochnymi vodami i drugimi sbrosami. Moskva,
Fishchepromizdat, 1958. 71 p. (MIDA 11:7)

(Water--Pollution)

(Fishes)

(Waste products)

ZADUBIN, N.A., inzhener [deceased].

Approximate method of calculating the consolidation of earth-fill
dams. Izv. VNIIG no. 43:79-88 '50.
(MLRA 10:2)
(Dams)

ZADULIN, P.

ZADULIN, P.

A live and creative process. Prof.-tekh.obr. 14 no.9:27-28 S '57.
(MIRA 10:9)

1. Direktor stroitel'noy shkoly No.2, Novosibirskaya oblast'.
(Building trades--Study and teaching)

ZADUL' SKAYA, Ye.S.

Feeding and food relationships of predatory fishes in the northern
part of Rybinsk Reservoir. Trudy DGZ no.6:345-405 '60.
(MIRA 13:10)

(Rybinsk Reservoir--Fishes--Food)

PAKTOVSKIY, Ya.V.; ZADUL'SKIY, L.N.

Roentgenodiagnosis of calcifications of the fibrous ring of the tricuspid valve. Vest. rent. i rad. 35 no. 4:68-69 Jl-Ag '60.
(MIRA 14:2)

1. Iz kafedry rentgenologii i radiologii (zav. - prof. Ye.L. Kevesh) Krybyshevskogo meditsinskogo instituta.
(HEART—CALCIFICATION)

ACCESSION NR: AF4019332

S/0072/64/000/003/0009/0011

AUTHOR: Borisev, A. F. (Candidate of Technical Sciences); Zadomir, V. I.
(Engineer)

TITLE: New method for controlling changes in glass crystal materials

SOURCE: Steklo i keramika, no. 3, 1964, 9-11

TOPIC TAGS: glass, glass material, glass crystallization, glass emf measurement,
glass crystal material, glass crystallization control, glass crystallization,
kinetics

ABSTRACT: Many physical chemistry methods are used for analyzing the structure
of glass which has undergone heat working. The most effective are those methods
which permit a direct monitoring of the process kinetics and which are also
distinguished by a higher sensitivity to structural changes. The authors
developed a new method which is based on change in emf. This method is highly
sensitive to structural changes and permits a direct control of the course of
crystallization during heat working. The operating principle is as follows. If
two plates of glass of one and the same composition, one of which is crystallized,

Card 1/3

ACCESSION NR: AF4019312

are joined together and then placed between platinum electrodes and heated, emf originates between the electrodes after a specific temperature had been attained. This emf attains a value of hundreds of millivolts. The emf will gradually diminish in proportion to the crystallization of the second glass until the ratio between the crystal and nitreous phases becomes identical. The platinum electrodes are gaseous oxygen electrodes. The electrodes potential depends upon the activity of the oxygen in the glasses at a constant partial pressure of the oxygen in the gaseous phase. In turn, the activity of the oxygen ions depends upon the electrolyte structure and temperature. The emf is measured by a compensation method. A PPTV-1 potentiometer working in a complex with a mirror ballistic galvanometer was used to measure the emf. Findings show that samples reduce their resistance somewhat at 600C, and this enables the emf of the galvanic element to be measured. The emf is reduced at 730C, which is apparently associated with the precipitation of the submicrocrystalline phase, which then is dissolved to a significant extent with a temperature rise. A second sharp reduction in the emf from 200 to 60 millivolts sets in over a temperature range of 790-825C. A reduction in the emf is accompanied by the formation of a crystalline phase in the sample, which is confirmed by DTA data. The emf grows to 120 millivolts with a temperature

Card 2/3

ACCESSION NR: AP4019332

rise from 830 to 1225C. In studying the kinetics of the crystallization processes, it is not necessary to use as the standard a crystallized glass of the same composition as the one being tested. Any other sample which does not undergo any substantial structural changes during the heating process can be used. In this case, only the absolute ϵ_{inf} values change but the kinetics of the crystallization process can be monitored with the same success. Orig. art. has: 4 figures.

ASSOCIATION: Saratovskiy Filial Instituta stekla (Saratov Division of Glass Institute)

SUMMITTED: 00 DATE ACQ: 27Mar64 ENCL: 00
SUB CODE: CH, MA NO REF Sov: 000 OTHER: 001

Card 3/3

GORTSUYEV, B.K.; ZADUMINA, M.I.

Correlation of Neocomian deposits in the Saratov area of the trans-Volga region based on the results of mineralogical investigations and spectrum analysis. Dokl. AN SSSR 134 no.2:408-411 5 '60.
(MIRA 13:9)

1. Saratovskiy gosudarstvennyy universitet im. N.G.Chernyshevskogo. Predstavлено akad. N.M. Strakhovym.
(Saratov Province--Geology, Stratigraphic)

~~Declassify~~

KROWCZYNISKI, Leszek; PARAFINSKA, Zofia; ZADUMINSKI, Marian [deceased]

Preservation of aqueous heparin solutions. Acta pol. pharm. 20
no.3:265-268 '63.

1. Z Zakladu Farmacji Stosowanej Instytutu Farmaceutycznego w
Warszawie Kierownik: doc. dr L. Krowczynski.
(HEPARIN)

Declassify

ZWOLINSKA, Zofia; ZADUMINSKI, Marian[deceased]; WASILEWSKA, Irena;
KROWCZYNSKI, Leszek

Effect of the quality of the raw material and of the method
of preparation on the stability of aqueous solutions of
thiamine HCl for injections. Acta pol. pharm. 20 no.4:339-344
'63.

1. Z Zakladu Farmacji Stosowanej Instytutu Farmaceutycznego w
Warszawie Kierownik: doc. dr L. Krowczyński.
(THIAMINE) (CHEMISTRY, PHARMACEUTICAL)

Declassify

ZADUMINSKI, Marian [deceased]; WASILEWSKA, Irena, KROWCZYNski, Leszek;
KREPSKA, Hanna

Observation on the stability of cocarboxylase hydrochloride.
Acta pol. pharm. 20 no.5:399-403 '63.

1. Z Instytutu Farmaceutycznego w Warszawie.

CA

Absorption spectra of some naphthalene derivatives in the near-infrared region (0.7-1.3 μ). S. N. Zadunkin (Lenin State Pedagog. Inst., Moscow). Zhur. Khim. 8, 88-95 (1951).—Studied were naphthalene (I), α -methylnaphthalene (II), α - α -butylnaphthalene (III), di-acetyl naphthalene (IV), tetrahydronaphthalene (V), α -chloronaphthalene, and α -bromonaphthalene. The absorption spectra of I, III, and IV were obtained in soln. in CCl_4 , and the spectra of the other compds. in their pure state. In addn. the spectrum of I was obtained in its molten state. There was no difference between it and the spectrum of I soln. in CCl_4 . The 2nd and 3rd harmonic of CH_2 of I had a sym. shape. Both harmonics had a slight spread as compared with the corresponding spectra of V (VI). The 2nd was shifted by approx. 3.5 m μ and the 3rd by approx. 3 m μ as compared to the fundamental harmonics of C₆H₆ (cf. C.A. 35, 3170). The halo derivs. were sym. and their max., compared to I, were shifted toward shorter wave lengths. The shift for the chloro deriv. was more than for the bromo derivs. The aromatic bands of II and III, IV, and V were shifted toward long wave lengths and were considerably wider than those of I. Absorption spectra were also obtained for solns. of similar *n*, where *n* = the no. of CH aromatic bonds, *c* = mol. concn., and *l* = the thickness of the soln. Next were computed the coeff. of mol. absorption and the integral coeff. of absorption. Within the limits of exptl. error the results conformed to the Lambert and Beer laws. The halo derivs. absorbed in the 2nd harmonic by approx. 16% and in the 3rd by approx. 18% less than the CH₂ bonds of I in the corresponding harmonics. Only V absorbed more strongly than I. The aliphatic bonds of the derivs. absorbed less in the max. than the aromatic bonds, but the total absorption of the aliphatic bonds was 13-18% higher than that of the aromatic.

M. Hirsch

ZADUMKIN, S. N.

USSR/Chemistry - Surface tension 1 Sep 53

"Surface Tension and Heat of Vaporization of Metals," S. N. Zadumkin, "Kabardinskiy State Ped Inst

DAN SSSR, Vol 92, No 1, pp 115-118

Established a relationship between the surface tension of metals and their heat of sublimation. Calcd surface tension for a number of high-melting metals and compared with exptl data from literature. Agreement is satisfactory, but author emphasises that the formula is empirical. Presented by Acad A. N. Frumkin 10 Jul 53.

274FL3

USSR/Physics - Heat of evaporation

Card 1/1 Pub. 146-19/21 FD-806

Author : Zadumkin, S. N.

Title : Surface tension and heat of evaporation of mercury, antimony, bismuth and arsenic

Periodical : Zhur. eksp. i teor. fiz, 27, 261-262, Aug 1954

Abstract : Letter to the editor. Attempts to extend his former formulas (DAN 92, 115 (1953)) to metals with rhombohedral lattice, i.e., Hg, Sb, Bi, As. Two references.

Institution : Kabarda State Pedagogical Institute

Submitted : October 17, 1953

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001963410009-8

A simple method is introduced for calculating the temperature, where

Information by R. N. Franklin, October 22, 1967

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001963410009-8"

ZADUMKIN, S.H.

Surface tension and the boiling point of metals. Uch.zap.Lab.gos.
pod.inst.no.10:7-12 '56. (MLRA 10:3)
(Surface tension) (Liquid metals)

SOV/58-59-7-15349

Translation from: Referativnyy Zhurnal Fizika, 1959, Nr 7, p 107 (USSR)

AUTHOR: Zadumkin, S.N.TITLE: Approximate Calculation of the Surface Tension¹ of Metals With a Hexagonal Close-Packed Structure

PERIODICAL: Uch. zap. Kabardino-Balkarsk. un-t, 1957, Nr 2, pp 279 - 283

ABSTRACT: In a previous study (RZhFiz, 1957, Nr 10, 25084) the author made an approximate calculation of the surface tension of cubic-syngony metals on the basis of one of the variants of the ion-electron polar model. In the present study it is shown that the formulae for determining the surface tension coefficient and its temperature dependence for cubic-system metals yield satisfactory results for metals with a hexagonal close-packed structure. The author compares the values of the surface tension and temperature dependence calculated by means of these formulae for a number of metals of hexagonal compact structure with values that were obtained experimentally. In spite of the crudeness of the metal model that was used and the approximateness of the entire calculation, the computed values stand in satisfactory agreement with the experimental ones.

Card 1/1

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001963410009-8

ZADUMKIN, S.N.

Approximate calculations of surface energy in ionic crystals. Izv.
vys. ucheb. zav.: fiz., no.2:151-158 '58. (MIRA 11:6)
(Alkali halide crystals) (Surface chemistry)

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001963410009-8"

AUTHOR: Zadumkin, S. N. 69-58-2 -7/23

TITLE: The Surface Tension of Disperse Systems (K voprosu o po-verkhnostnom natyazhenii dispersnykh sistem)

PERIODICAL: Kolloidnyy zhurnal, 1958, Vol XX, Nr 2, pp 170-173 (USSR)

ABSTRACT: Several experimental facts indicate that the surface tension in small droplets and crystals is greater than in large ones. The boiling temperature of water condensed in micro-pores depends on the diameter of the pores. S.V. Gorbachev developed a formula concerning the dependence of the surface tension of minute spherical droplets on their radius of curvature. It is known that the surface tension in crystals is different for different faces of the crystal. In a highly disperse crystalline phase, a relatively large number of particles may be located in the corners and edges of crystals. These particles have a supply of free surface energy which is different from that of the surface particles. For small crystals, only an average value of the surface energy can be calculated. In this article, Gorbachev's formula has been extended to the case when the boundary surface is characterized by the mean curvature. The surface tension of disperse system has been shown to depend linearly on their specific surface.

Card 1/2

The Surface Tension of Disperse Systems

69-58-2 -7/23

There is 1 diagram and 9 references, 5 of which are Soviet,
2 English, 1 American, and 1 German.

ASSOCIATION:

Kabardino-balkarskiy gosudarstvennyy universitet, Kafedra eksperimental'noy i teoreticheskoy fiziki (Kabardino-Balkarskiy State University, Chair of Experimental and Theoretical Physics)

SUBMITTED:

October 12, 1956

1. Crystals--Surface tension--Theory 2. Drops--Surface tension--Theory

Card 2/2

24,7500

S/058/61/000/010/075/100
A001/A101

AUTHOR: Zadumkin, S.N.

TITLE: Surface energy of some alkali-halide crystals

PERIODICAL: Referativnyy zhurnal. Fizika, no. 10, 1961, 245, abstract 10E108
("Uch. zap. Kabardino-Balkarsk. un-t", 1959, no. 3, 111 - 119)

TEXT: The author calculates free surface energies σ of alkali-halide salts and temperature coefficients $d\sigma/dT$. The surface free energy per particle is assumed in calculation to be equal to $F_s - F_v$ where F_s and F_v are summary free energies of the particle on the surface of a crystalline face and inside of an infinite crystal respectively, and F_v is composed of oscillation energy F_{osc} and the energy of particle bond E at T=0. F_{osc} is calculated as a sum of two parts: Debye and Born energies, E is calculated on the basis of the known quantum-mechanical expressions; F_s was determined by the author earlier. Expressions for σ and $d\sigma/dT$ are derived for temperature ranges $T \gg \theta$ and $T \ll \theta$ (θ is Debye temperature). For NaCl-type crystals the calculated values of σ at the melting point and $d\sigma/dT$ agree well with experimental data.

B
✓
G. Krasko

[Abstracter's note: Complete translation]

Card 1/1

ZADUMENIN, S.N.

Surface tension and heat of sublimation of silicon, germanium and
tin. Fiz. tver. tela 1 no.4:572-573 '59. (MIRA 12:6)

I.Kabardino-Balkarskiy gosuniversitet.
(Silicon) (Germanium) (Tin)

18.8100

5(4)
AUTHOR:Zadumkin, S. N.

TITLE:

Influence of the Nonharmonic Nature of the Ion Oscillations on
the Surface Tension of Metals

PERIODICAL:

Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 11, pp 2601-2606
(USSR)

ABSTRACT:

The nonharmonic type of thermal oscillation starts to play an important role at high temperatures $T > \Theta_D$. The approximate calculation carried out in the present case, shows that one may also observe a marked influence on the surface tension of metals in dependence on the temperature. An equation is derived on the relation between the heat-coefficient α_p , the crystal expansion and the first coefficient β of the nonharmonic type of oscillation of the molecules (Refs 1-4). Additional information in the paragraphs entitled "the statistic sum and the free energy of nonharmonic oscillators" and "the surface tension of metals with consideration of the nonharmonic type of ion-oscillation", show that the influence of the nonharmonic type of ion oscillation at $T \gg \Theta_D$ on the temperature dependence of

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SOV/76-33-11-38/47

Card 1/2

66874

SOV/76-33-11-38/47

Influence of the Nonharmonic Nature of the Ion Oscillations on the Surface
Tension of Metals

the surface stress in Ag, Au, and Pb (Table) cause an effect
of 50-60% of the value of $\frac{d\sigma}{dT}$ (σ = coefficient of the surface
stress, T = temperature). There are 1 table and 14 references,
11 of which are Soviet.

ASSOCIATION: Kabardino-Balkarskiy gosudarstvennyy universitet, Nal'chik
(Kabardino-Balkarskiy State University, Nal'chik)

SUBMITTED: April 15, 1957

Card 2/2

S/081/61/000/020/018/089
B101/B147

AUTHOR: Zadumkin, S. N.

TITLE: Surface tension and structure of a metallic melt

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 20, 1961, 72, abstract
20B547 (Sb. "Stroyeniye i svoystva zhidk. metallov, M., 1960,
54 - 43)

TEXT: Fundamental principles put forward in a previous paper of the author
(RZhKhim, no. 23, 1957, 74077) were applied to an approximate calculation
of σ' of liquid metals which had both densely and loosely packed atoms in
their solid phases. In addition, results of a paper published in RZhKhim,
no. 17, 1960, 68781) were used to estimate σ'_{12} at the polycrystal-melt
interface. It is noted that the value of σ' gives information on the kind
of short-range coordination of a melt near the melting point. [Abstracter's
note: Complete translation.]

Card 1/1

ZADUMKIN, S.N.

Approximate calculation of the surface energy of some semiconductors
with diamond and zinc sulfide structure. Fiz. tver. tela 2 no.5:876-
882 My '60. (MIRA 13:10)

1. Kabardino-Balkarskiy gosudarstvennyy universitet.
(Semiconductors)

S/139/60/000/006/014/032
E032/E414

AUTHOR: Zadumkin, S.N.

TITLE: Surface Energy of Alkali-Halide Crystals With a
Caesium Chloride Type Lattice

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika,
1960, No.6, pp.102-104

TEXT: In a previous paper (Ref.1) the author calculated the surface energy of a number of alkali-halide crystals with NaCl type lattices. It is now stated that no theoretical calculations have so far been published on the surface energy of alkali-halide crystals with CsCl type lattices. The method developed in Ref.1 can be used to carry out such a calculation. One would expect on thermodynamic grounds that a reduction in the temperature and an increase in the pressure should produce closer ion packing, i.e. a transition from a NaCl structure to a CsCl type structure. This has in fact been confirmed experimentally using RbCl, CsCl, CsBr and CsI. The following table gives the values of the surface energy σ_0 of a (100) crystal face at $T = 0$ and $d\sigma/dT$ for alkali-halide compounds with CsCl type lattices. The experimental values in the table

Card 1/3

S/139/60/000/006/014/032
EO32/E414

Surface Energy of Alkali-Halide Crystals With a Caesium Chloride Type Lattice

were taken from a paper by Eger (Ref.2) and the values of n (the exponent in the formula for the repulsive forces in ionic crystals) were taken from the book by Seitz (Ref.3).

Salt	n	$\sigma_0(100)$ erg cm ⁻²	T _{melt} °K	σ_{melt} erg cm ⁻²		$\frac{d\sigma}{dT}$, erg cm ⁻² deg ⁻¹	
				calc.	exp.	calc.	exp.
RbCl	9.5	472	993	79.5	98.3	-0.056	-0.086
CsCl	10.5	343	919	74.9	91.3	-0.045	-0.077
CsBr	11	280	904	57.2	83.6	-0.041	-0.063
CsJ	12	227	893	88.4	91.6	-0.034	-0.053

Card 2/3

S/139/60/000/006/014/032
E032/E414

Surface Energy of Alkali-Halide Crystals With a Caesium
Chloride Type Lattice

There are 1 table and 4 references: 1 Soviet and 3 non-Soviet
(2 of which are translated into Russian).

ASSOCIATION: Kabardino-Balkarskiy gosuniversitet
(Kabardino-Balkarskiy State University)

SUBMITTED: July 27, 1959

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Card 3/3

86703
S/180/60/000/006/022/030
E201/E391

113950

AUTHOR: Zadumkin, S.N. (Nal'chik)

TITLE: The Surface Tension and the Structure of Molten Metals

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Metallurgiya i toplivo, 1960, No. 6, pp. 119 - 123

TEXT: The author criticises current theory of surface tension (σ) of molten metals because these theories ignore either the existence of ions or of free electrons. Following the success of an empirical formula relating the surface tension of a molten metal with the latent heat of sublimation (L) and the short-range order in a melt, the author derived expressions for σ and $d\sigma/dT$ (T is the absolute temperature) which were first reported elsewhere (Refs. 28, 29):

$$\sigma = \frac{\overline{\Delta f}}{f_{kv}} n_s \left\{ L_0 - \left[3kT \ln 2 + 3 \left(\frac{k}{N} \alpha_p a^2 \theta T \right)^2 \right] \right\} \quad (1)$$

Card 1/3

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E201/E391

The Surface Tension and the Structure of Molten Metals

$$\frac{d\sigma}{dT} = - \frac{\bar{\Delta f}}{f_{kv}} \bar{n}_s \left[3k \ln 2 + 6 \frac{A}{N} T \left(\frac{k}{\hbar} \alpha_p a^2 \theta \right)^2 \right] - 2\alpha_p \sigma \quad (2)$$

Here, L_0 is the value of L at $T = 0$;

$\bar{\Delta f}/f_{kv}$ is the mean relative number of missing nearest-neighbour positions for an atom at the liquid surface;

\bar{n}_s is the mean number of ions per 1 cm^2 of the liquid surface;

k is the Boltzmann constant;

A/N is the mass of one atom;

\hbar is the Plank constant divided by 2π .

Card 2/3

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S/180/60/000/006/022/030
E201/E391

The Surface Tension and the Structure of Molten Metals

α_p is the linear thermal expansion coefficient;
 a is the half-period of the lattice;
 Θ is the Debye temperature.

these expressions were tested on a number of metals and good agreement was obtained between the calculated (columns 6 and 8 of Table 1) and experimental values (columns 7 and 9 of Table 1). The calculated and experimental values of the mean interface surface tension σ_{12} between a crystal and its melt were also in good agreement (Table 2). There are 2 tables and 38 references: 28 Soviet and 10 non-Soviet.

SUBMITTED: September 26, 1960

Card 3/3

11.4000

11.3000

AUTHOR:

Zadumkin, S. N.

TITLE:

An Approximate Estimation of the Critical Temperature of
Metallic Liquids

PERIODICAL:

Inzhenerno-fizicheskiy zhurnal, 1960, Vol. 3, No. 10,
pp. 63 - 65

TEXT: The author tries to estimate the critical temperature of metals on the basis of the elementary statistic theory of the surface tension of metals as suggested by him in previous papers (Refs. 2,3). Proceeding from formula (1) for the surface tension of a metal at the boundary with the vacuum above the Debye temperature, the author finds

$$T_{cr} = \frac{\sqrt{0.481 + \frac{4}{3}mL_0\left(\frac{\alpha a\theta}{k}\right)^2} - 0.693}{2mk\left(\frac{\alpha a\theta}{k}\right)^2} \quad (13)$$

Card 1/2

An Approximate Estimation of the Critical
Temperature of Metallic Liquids

84264
S/170/60/003/010/009/023
B019/B054

for the critical temperature. The values calculated by this formula
are given in Table 1:

Metal	T_{melt}	T_{boil}	T_{cr} (theor)	T_{cr} (exp)
Hg	236.3	630	1870	1733 ± 5
Na	370.6	1153	2580	-
K	335.4	1033	2300	-
Pb	600.5	2013	4200	-
Cd	594	1040	3900	-
Bi	544	1743	6500	-

X

Here, the approximate relation $T_{cr} \approx 3T_{boil}$ holds. There are 1 table
and 6 Soviet references.

ASSOCIATION: Kabardino-Balkarskiy gosuniversitet, g. Nal'chik
(Kabardino-Balkarian State University, Nal'chik)

SUBMITTED: May 9, 1960

Card 2/2

ZADUMKIN, S.N. (Nal'chik)

Amount of interphase surface energy in metals at the crystals-melt boundary. Izv. Ak. SSSR. Otd. tekh. nauk. Met. i topl. no.1: 55-57 Ja-F '61. (MIRA 14:2)

1. Kabardino-Balkarskiy gosudarstvennyy universitet.
(Surface energy) (Metallurgy)

ZADUMKIN, S.N. (Nal'chik); KABARDINO-BALKARSKIY gosuniversitet

Statistical electron theory of the surface energy of binary metal solutions. Izv. AN. SSSR. Otd. tekhn. nauk. Met. i topl. no.3:163-166 My-Je '61. (MIRA 14:7)
(Surface energy) (Free electron theory of metals)

ZADUMKIN, S.N.

Value of the interphase metal surface energy at the crystal melt
boundary. Porosh. met. no.5:21-25 Jl-Ag '61. (MIRA 16:5)

1. Kabardino-Balkarskiy gosudarstvenny universitet.
(Crystal lattices) (Surface energy)
(Phase rule and equilibrium)

24.7000

S/058/62/000/006/094/136
A057/A101

AUTHOR: Zadumkin, S. N.

TITLE: The surface energy of transition metals

PERIODICAL: Referativnyy zhurnal, Fizika, no. 6, 1962, 53, abstract 6E408
("Uch. zap. Kabardino-Balkarsk. un-ta", 1961, v. 13, 41 - 46)

TEXT: The results of a previous work of the author (RZhFiz, 1961, 11E209) on the calculation of the free surface energy of metals are generalized for transition metals. The Vankovskiy model is used to describe the electron energy of such a system. To the previous results of the author are added terms considering s-d exchange interaction (in "its lattice point" and between the points), and d-d exchange interaction between the neighboring points. Moreover, Van-der-Waals interaction is discussed, which is negligibly small in common metals, but in transition metals can cause a considerable correction. ✓
5

K. Gurov

[Abstracter's note: Complete translation]

Card 1/1

S/137/62/000/006/003/163
AOC6/A101

AUTHORS: Zadumkin, S. N., Tambiyev, B. S.

TITLE: Surface energy and sublimation heat of rare-earth metals

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 6, 1962, 9, abstract 6A50
("Uch. zap. Kabardino-Balkarsk. un-t", 1961, no. 13, 46 - 49)

TEXT: The authors present results of calculating σ and $d\sigma/dT$ for all the 14 lanthanides by the approximate method which connects σ with the heat of sublimation and melting of metal and with the short-range order in the melt. The method is based on the distribution of the metal energy over the bonds of close neighbors which are considered to be the octahedral positions in the cubic lattice and the tetrahedral positions in the hexagonal compact lattice. It was established that σ for different lanthanides varies within a range of 250 to 988 erg/cm², and $d\sigma/dT$ from 0.041 to 0.99; the results of calculations are in agreement with the periodic course of other physical and chemical constants as a function of the atomic number of the same elements. It is pointed out that changes of the calculated values obtained may occur on the basis of structure.

Card 1/2